Class Tasks 5.5
Documenting and Justifying Decisions
Suggested Answers

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Class Task 5.5 – Documenting and Justifying Decisions

You are working as a consultant for the East Berkshire Secondary School (EBSS) Student Support Department, and you were helping students achieve their C points for entry to the East Berkshire Sixth Form College (EBSFC).

You had been given a data model containing data for 5 students who were at risk of not achieving the required average C point score and were at risk of not securing their place at EBSFC.

You were told that you had a Maths Specialist and an English specialist that can each provide a maximum of 6 hours of 1:1 support each week. On average, the support of one specialist for an hour a week could increase a grade by **1 point.** You could allocate this support as you saw fit – giving students 3, 2, 1 or 0 hours of support.

In previous exercises you identified the **THREE** alternate solutions, and you made a decision where you recommended **ONE** solution for the allocation of these specialists to students so that the maximum number obtained

You will need to document and justify this decision based on the criteria set in the following questions.

Present your findings to the group.

Time Allowed: 35 minutes

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Exercise 1 – Summarise the Problem

Complete the following tables summarise the problem and scenario and identify your role in this.

Time Allowed: 5 minutes.

Scenario	• You are working for a Student Support Department in a School. • To get to college, students need a required C score of 65 in English and Maths • A C score is obtained by multiplying the GCSE grade by 10 and taking the average of English and Maths.

Problem	• There are 5 students at risk of not achieving their required C points to go into college. • There are 2 subject specialists, each providing 6 hours of support. • The school needs to work out which students need support and for how long. • The school wants the maximum number of students achieve the required C point score.

Role	The data model and data has been supplied to me, so my role is a data analyst.

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Exercise 2 – Identify the Data Sources

Complete the following tables and identify:

- The data sources
- The information contained
- Whether the information was useful

Justify your decision.

Time Allowed: 10 minutes.

Data Source	• The data source was supplied to me by the East Berkshire Secondary School (EBSS) Student Support Department. • I was not able to identify the source of the data.
Information Contained	• Student First and Last Name. • Target and predicted grades for English and Maths. • Predicted C points for English and Maths. • New predicted C points after support. • Average C points for English and Maths. • Required C points. • A set of graphs showing Target vs Predicted grades. • A graph showing Average vs Required C points.
Was it useful?	• All of this information was very useful.
Justification	• This was because adding the new support hours showed the new predicted grades. • This changed the new predicted C points. • The Graph of average vs predicted C points quickly showed which students had achieved the required points and which had not. • The target grade vs predicted grade helped to identify the solution that gave the best decision or compromise.

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Exercise 3 – Identifying Factors

For each of the factors listed in the table below:

- Explain was the factor relevant
- Did the factor affect your planning?

Time Allowed: 10 minutes

Factor	Was the Factor Relevant?	Did it Affect Your Planning?
Skill Set	This factor was not relevant because all functions and formulas were simple.	This did not affect my planning because the model and data were already created, and I could use it immediately
Time	This was not relevant because the model and data were already created, and I could use it immediately	This did not affect my planning because the model and data were already created, and I could use it immediately
Missing Data	This was relevant, because there were many other factors that could have affected my solution, including attendance data, medical data and other mock results.	This did not affect my planning because I just used the data available to me to make the best decision. This was based on the number of students achieving a C score, followed by the number of students getting better than their predicted grade.
Understanding The Scenario	This was relevant because I did not understand some of the concepts, such as Target Grade, Predicted grade and C score.	This did affect my planning as I had to take some time to fully understand these terms before I could make accurate decisions.

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Exercise 4 – Methods Used to Reach A Decision?

Identify as many methods that you used to reach your decision as you can.

Justify each method and add more rows if needed.

Time Allowed: 10 minutes

Method	What Did You Do?	Justification
Input	Altered the English support hours	This allows me to identify the best combination of support for students to get the best result.
Input	Altered the Maths support hours	This allows me to identify the best combination of support for students to get the best result.
Presentation	Used the Average vs Required C points graph	I used this because it gave me an immediate visual idea of which students had achieved the required C points and which had not. I could then change the support hours accordingly.
Presentation	Used the Target vs Predicted grade graphs for English and Maths	I used this because it gave me an immediate visual idea of which students had done better than their predicted grades. I used this to identify which of the alternate decisions gave the most overall benefit to the students.

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Method	What Did You Do?	Justification
Processing	I looked at the new predicted grades for English and Maths	This was because according to the scenario, 1 hour of support resulted in a 1-point increase in the predicted grade. This helped me to work out where I needed to allocate the extra support and for how many hours.
Processing	I looked at the Average Predicted C points.	By comparing the new Average C points against the required, I could see which scores were above or below the required value. This helped me to work out where I needed to allocate the extra support and for how many hours.
Processing	I counted the number of students who were doing equal to or better than their predicted grade.	I used this to identify which of the alternate decisions gave the most overall benefit to the students.

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